

## Statement of Work

Contract:	Region 8 Risk Assessment
Contract Number:	EP S8 11 03/SRC, Inc.
Task Order Number:	0005
Amendment Number	Initial
Scope:	Libby Asbestos Superfund Site Human Health Risk Assessment
Contract SOW Reference	Task Numbers 1, 2, and 5
EPA Contracting Officer:	Kirk Roegner (303/312-6200) roegner. kirk@epa.gov
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Period of Performance:	Award to June 30, 2013

**Project Name:** Libby Asbestos Superfund Site Technical Support for Human Health Risk Assessment

**Period of Performance:**

The period of performance of this effort shall be from award to June 30, 2013.

**Task Order Description**

**Background:**

The Libby Asbestos Superfund site is located in Northwestern Montana and is the site of a former mine that produced vermiculite. The mine operated from the early 1920s to 1990 and was operated by W.R. Grace from 1964 until it closed in 1990. The mine produced vermiculite ore and vermiculite that was used for home insulation, fire proofing, and in nursery/horticultural applications. The vermiculite ore contained low levels of amphibole asbestos that occurred naturally in the geologic formations that were mined for ore. The amphibole asbestos was a unique amphibole, mineral mixture containing predominantly winchite, richterite, and tremolite which remained in the processed vermiculite after thermal expansion. The product was sold as Zonolite vermiculite and used for attic insulation in the United States and it was made available to many home owners for insulation in Libby, MT and surrounds or used as a soil amendment.

In 1999 following a series of newspaper articles concerning extensive lung disease in the miner and residential population in Libby, MT, the USEPA sent an emergency response team into Libby to evaluate the contamination and extent of public health effects. The emergency response team indentified significant asbestos contamination in residential, municipal, and public buildings, public schools and public areas with multiple completed inhalation exposure pathways.

Date last saved: February 14, 2012

Emergency response/removal actions were commenced to eliminate significant human exposures. In 2002, Libby became a Superfund site and was placed on the National Priorities List. The site has been divided into eight [8] study areas termed operable units and each operable unit has its own unique characteristics and challenges. The site was declared a Public Health Emergency in 2009. Due to the complex nature of exposures and the nature of the contaminant, innovative analytical methods and sampling techniques have been developed and employed to collect and quantify potential human and ecological receptor exposures for evaluation of risk.

Since 1999, numerous response actions have occurred at the former mine, processing facilities, public areas, commercial buildings, and private residences. The Screening Plant, Export Plant, expansion facility and mine wastes were removed, and soil in these areas was removed or capped. Vermiculite piles, vermiculite surfaces on athletic fields, and vermiculite at schools (High School, Middle School, and Plummer Elementary School) were removed. As of January 2011, over 1,400 residential and commercial properties have undergone response actions.

Though substantially reduced by EPA response actions, current exposures are still occurring for residents who may be exposed to vermiculite-containing soils where cleanup has not yet occurred, for contractors who are remodeling homes that contain vermiculite in the walls of structures, for citizens exposed to forest duff during recreational activities, and for remedial action contracting personnel.

Note that some amount of Libby Amphibole is expected to remain in the environment after remediation activities are concluded.

This statement of work (SOW) outlines the tasks to be performed by the Contractor to assist EPA's Libby team in the evaluation of human health risks at the Site.

**NOTE:**

The Contractor shall:

- schedule a scoping meeting with the EPA COR, Contracting Officer (CO) and Project Officer (PO) within three (3) calendar days following receipt of this SOW to discuss the overall objective of the SOW and specific task elements
- submit a proposed Work Plan within fifteen (15) business days following receipt of this SOW
- prepare Monthly Progress Reports containing a description of the work performed that month, specific difficulties encountered, hours expended and percentage of each task completed with accompanying invoices based on work performed; two hard copies to the PO, one each for the

- CO and PO; and electronic copies, with bookmarks by task order, to the CO and PO
- prepare a close-out report within 60 days of completion of all tasks associated with this SOW.

## **TASKS**

The Contractor shall provide technical oversight and review of risk assessments and related technical documents in support of the Libby Montana Superfund site. All tasks where the Scope of Work includes collection of or use of environmental data, design or construction of technologies, develops or uses models, or may require quality assurance or control will require a Quality Assurance Project Plan to support the task. The support may include the following:

### **Task 1 – Support for Non-Cancer Toxicity Factor (RfC)**

The Contractor shall evaluate the exposure-response relationship for adverse health effects observed in the Marysville, Ohio cohort. A brief Quality Assurance Project Plan [QAPP] will be developed by the Contractor to address the exposure modeling and the document preparation/management. The QAPP shall be submitted approximately 15 day after approval of the Scope of Work. This task includes reviewing refined exposure data developed by the University of Cincinnati, reviewing updated diagnosis of pleural lesions by the University of Cincinnati, and making refinements in the previously conducted modeling of the exposure response data and responding to comments from the public and the Science Advisory Board [SAB] Peer Review Panel concerning the Draft Toxicity Assessment for Libby Amphibole asbestos. The contractor shall work with Region 8 scientists to revise the modeling and text of Appendix B of the assessment. The expected deliverable shall consist of the revised non-cancer toxicity assessment of the Libby Amphibole asbestos. This task shall be performed in coordination with Region 8 scientists and staff from the National Center for Environmental Assessment [NCEA]. The task will be an iterative process between Region 8 and NCEA. The revised Appendix B shall be received 45 days after the receipt by Region 8 of the Final Review Comments from the asbestos SAB. In order to facilitate the conduct of the revision, meetings at Region 8, conference calls, and emails will be required for project communication. The deliverable shall consist of a Draft Final version of the US EPA Toxicity Assessment for Libby Amphibole Asbestos, which includes cancer and non-cancer toxicity factors.

### **Subtask #1 – Revisions to the RfC Supporting Data and Documentation**

The contractor shall subcontract with a knowledgeable third party to revise the text of Appendix F [the exposure matrix] per recommendations and directions provided by the SAB's formal requests. The subcontractor shall be knowledgeable with the Marysville, OH, O M Scott worker cohort, the development of the job exposure matrix, and be able to respond technically to the SAB comments and directions for revising the text. The subcontractor shall be capable of responding to unanticipated concerns and revisions to Appendix F describing the job exposure matrix and the assumptions used during the derivation of the matrix. The deliverable shall be a revised Appendix F for the Draft Final Libby Amphibole Asbestos toxicity assessment.

## **Task 2 – Technical Review and Oversight for the Conduct of Risk Assessments for Libby**

The Contractor shall provide senior technical review, oversight, strategic planning, critical flaw analysis, and/or high level statistical evaluation of various aspects of the risk assessment process/components for the Libby Asbestos Superfund site. [The senior technical staff shall participate with Region 8 in drafting scientific and technical publications detailing scientific results from the field investigations conducted at the Libby site.](#) The senior technical support may include risk assessment related subject matter including:

- Review and oversight of potential/ plausible exposure scenarios and exposure point concentrations,
- Data gap analysis for risk assessments,
- Strategic planning and evaluation of background concentrations of LA in the Kootenai Valley,
- Development and evaluation of the nature and extents of LA contamination in the region including soil, forest land, and surface water(s),
- Evaluation of site-specific mineralogy [ $\text{Na}^+$  and  $\text{K}^+$  positive fibers] versus fibers lacking  $\text{Na}^+$  and  $\text{K}^+$  needs to be further elucidated and analyzed,
- Review of new electronic data reporting formats developed for new, or modified analytical methods,
- Review, evaluation, and technical comment on developing analytical methods and evaluation of analytical results, and
- Evaluation and development of advanced statistical tools for analysis of asbestos particles.

Risk assessments shall include the post-remediation risk assessments for OU-1 and OU-2, the residential/cumulative risk assessment for OU-4, the revised risk assessment for OU-5, and the risk assessment drafted for OU-6. Technical review may also include risk assessments for OU-7 and OU-8. To facilitate the review process, meetings at Region 8, conference calls, and other communication between the contractor and USEPA will be necessary. In

addition, risk assessment support shall be required for the Feasibility Studies that will be performed for OU-4, OU-5, and OU-6.

### **Deliverable & Activity Schedule ---**

- Technical memoranda and reports shall be provided in draft form for Region 8 staff review and comment. After receiving comments from the R8 technical staff and concurrence from the Remedial Program Manager[s], the Contractor shall prepare final versions of the documents.

**All deliverables shall be in hard copy [7 copies of the final document] and electronic format [i.e. Microsoft Word, Excel, Adobe Acrobat, compact disc.]**

<b>Deliverable</b>	<b>Contract SOW Reference</b>	<b>Due No Later Than</b>
<u>Task 1</u> Prepare a Quality Assurance Project Plan to support the modeling efforts Prepare response to Scientific Advisory Board comments, meetings and conference calls Complete revised exposure modeling and prepare revised draft Final Appendix B <u>Subtask #1</u> <u>Contract with knowledgeable contractor to revise Appendix F</u>	Task 1	15 days following the receipt of the approved Scope of Work  45 days following the receipt of Final review comments from the SAB    45 days following the receipt of Final Review comments from the SAB
Task 2 Technical review and oversight for the Conduct of Risk Assessments for Libby. Summary Reports, meeting attendance, and other reports as assigned	Tasks 1 and 2	Six (6) months following approval of Task Order Work Plan     As needed